

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A method for processing image data, the method comprising:
obtaining at least one processing zone for processing digital data obtained from one or more digital capture devices, wherein the at least one processing zone corresponds to a specific geometry;

obtaining a first frame of image data corresponding to one of the digital capture devices;

obtaining a second frame of image data corresponding to the digital capture device;

determining whether there is significant change between the first and second frames within the at least one processing zone, wherein the determination of significant change is made by evaluating differential data corresponding to an adjustable parameter; and

processing an event if a significant change is determined.

2. The method as recited in Claim 1, wherein the specific geometry of the processing zones is characterized by a rectangle.

3. The method as recited in Claim 1, wherein the specific geometry of the processing zone is characterized by a circle.

4. The method as recited in Claim 1, wherein the specific geometry is graphically displayed through a user interface.

5. The method as recited in Claim 4, wherein the specific geometry includes a hyperlink to one or more monitoring devices capable of input or output to a physical location that corresponds to the processing zone.

6. The method as recited in Claim 1, wherein evaluating the differential data includes statistically comparing a sample of pixels within the first and second frame of image data.

7. The method as recited in Claim 1, wherein evaluating the differential data includes evaluating specific color data for individual pixels.

8. The method as recited in Claim 1, wherein the adjustable parameter corresponds to a number of pixels to be compared.

9. The method as recited in Claim 8, wherein the adjustable parameters are entered through a graphical user interface.

10. The method as recited in Claim 9, wherein the graphical user interface is a WWW browser user interface.

11. The method as recited in Claim 1, wherein the adjustable parameter is dynamically modified.

12. The method as recited in Claim 1, wherein multiple processing zones are obtained from one or more frames of video, wherein at least one processing zone is evaluated using a parameter different from the at least one parameter used in the previously selected processing zone within the one or more frames of video.

13. The method as recited in Claim 12, wherein at least one processing zone excludes an area from evaluation.

14. The method as recited in Claim 1, wherein processing an event includes executing user-defined sequences if a significant change is determined.

15. The method as recited in Claim 14, wherein processing an event includes sounding alarm.

16. The method as recited in Claim 14, wherein processing an event includes archiving video data.

17. The method as recited in Claim 16, wherein archiving the video includes storing the video data in a file directory corresponding to given time period.

18. The method as recited in Claim 17, wherein archiving the video includes naming the file directory according to a time of the day.

19. A computer-readable medium having computer-executable instructions for performing the method recited in Claim 1.

20. A computer system having a processor, a memory, and an operating environment, the computer system operable to perform the method recited in Claim 1.

21. A system for providing security monitoring, the system comprising:
one or more monitoring locations including at least one monitoring device operable to generate a video image;

a central processing server operable to obtain the digital image and generate a user interface;

at least one monitoring computing device operable to display the user interface and to obtain one or more processing zones corresponding to the image data, wherein the central processing server processes the data according to the user's specified input.

22. The system as recited in Claim 21, wherein the specific geometry of the processing zone is characterized by a rectangle.

23. The system as recited in Claim 21, wherein the specific geometry of the processing zone is characterized by a circle.

24. The system as recited in Claim 21, wherein the specific geometry is graphically displayed through the user interface.

25. The system as recited in Claim 24, wherein the specific geometry includes a hyperlink to one or more monitoring devices capable of input or output to a physical location that corresponds to the processing zone.

26. The system as recited in Claim 21, wherein the central processing server is further operable to statistically compare a sample of pixels within a first and second frame of image data.

27. The system as recited in Claim 21, wherein the central processing server is further operable to evaluate specific color data for individual pixels of a first and second frame.

28. The system as recited in Claim 21, wherein the central processing server is operable to process the image data according to an adjustable parameter.

29. The system as recited in Claim 28, wherein the adjustable parameter is user specified through the graphical user interface.

30. The system as recited in Claim 28, wherein the adjustable parameter is dynamically modified.

31. The system as recited in Claim 21, wherein the graphical user interface includes multiple processing zones, and wherein at least one processing zone is evaluated using a parameter different from at least one parameter used in the other processing zone.

32. The system as recited in Claim 31, wherein at least one processing zone excludes an area from evaluation.

33. The system as recited in Claim 31, wherein the central processing server is further operable to process an event according to a user-defined sequence.

34. The system as recited in Claim 33, wherein processing an event includes sounding the alarm.

35. The system as recited in Claim 33, wherein processing an event includes archiving video.

36. The system as recited in Claim 35, wherein archiving video includes storing the video data in a file directory corresponding to a given period of time.

37. The system as recited in Claim 36, wherein archiving the video includes naming the file directory according to a time of day.

38. In a computer system having a graphic user interface including a display and a user interface device, a method for processing image data, the method comprising:

- obtaining a first frame of image data corresponding to an output from a digital capture device;
- displaying the first frame of data within a display area in the graphical user interface;
- obtaining a designation of at least one processing zone from the user interface device, wherein the processing zone corresponds to a specific geometric shape within the display area and includes processing rule data;
- displaying the processing zone within the display area of the graphical user interface;
- obtaining a second frame of image data corresponding to the output from the digital capture device;
- determining whether there is significant change between the first and second frames within the at least one processing zone, wherein the determination of significant change is made by evaluating differential data corresponding to an adjustable parameter; and
- processing an event if a significant change is determined.

39. The method as recited in Claim 38, wherein the geometric shape of the processing zones is characterized by a rectangle.

40. The method as recited in Claim 38, wherein the geometric shape of the processing zone is characterized by a circle.

41. The method as recited in Claim 38, wherein the processing zone includes a hyperlink to one or more monitoring devices capable of input or output to a physical location that corresponds to the processing zone.

42. The method as recited in Claim 38, wherein evaluating the differential data includes statistically comparing a sample of pixels within the first and second frame of image data.

43. The method as recited in Claim 38, wherein evaluating the differential data includes evaluating specific color data for individual pixels.

44. The method as recited in Claim 38, wherein the adjustable parameter corresponds to a number of pixels to be compared.

45. The method as recited in Claim 44, wherein the adjustable parameters are entered through a graphical user interface.

46. The method as recited in Claim 38, wherein the graphical user interface is a WWW browser user interface.

47. The method as recited in Claim 38, wherein the adjustable parameter is dynamically modified.

48. The method as recited in Claim 38 further comprising obtaining a designation of a second processing zone from the user interface device, wherein the second processing zone corresponds to a specific geometric shape within the display area and includes processing rule data, and wherein the processing rule data is different from the processing rule data from the previously designated processing zone.

49. The method as recited in Claim 48, wherein at least one processing zone excludes an area from evaluation.

50. The method as recited in Claim 38, wherein processing an event includes executing user-defined sequences if a significant change is determined.

51. The method as recited in Claim 50, wherein processing an event includes sounding alarm.

52. The method as recited in Claim 50, wherein processing an event includes archiving video data.

53. The method as recited in Claim 52, wherein archiving the video includes storing the video data in a file directory corresponding to given time period.

54. The method as recited in Claim 52, wherein archiving the video includes naming the file directory according to a time of the day.

55. A computer-readable medium having computer-executable instructions for performing the method recited in Claim 38.

56. A computer system having a processor, a memory, and an operating environment, the computer system operable to perform the method recited in Claim 38.

57. A computer system having a processor, a memory, and an operating environment, the computer system operable to perform the method recited in Claim 38.